

**In the Claims:**

1. A method of switching a speech channel in a mobile telephone system utilizing a signalling chanal and a speech channel, the mobile telephone system comprising an interface between a Base Station System (BSS) communicating with a Mobile Switching Centre (MSC) via a transmission connection, characterized in that the speech channels of an originating subscriber and a dialled-up subscriber, both of whom are located on the BSS side of the transmission connection, are connected in a local switcher, while the routing of the signalling channel via the Mobile Switching Centre (MSC) is retained.
2. A method in accordance with Claim 1, characterized in that a signalling channel corresponding to a set of speech channels is monitored by means of an analyzer, information regarding the dialled-up subscriber being analyzed in order then to connect the calls in the local switcher if both subscribers are on the same side of the transmission connection.
3. A method in accordance with Claim 1, characterized in that a number of transmission links from the BSS are concentrated down to a smaller number of transmission links transmitted via the transmission connection, whereupon the smaller number of transmission links is expanded to the original number of transmission links before they are transmitted to the MSC.
4. A method in accordance with Claim 3, characterized in that the analyzer monitors the capacity utilization in the transmission connection and prevents the MSC from attempting to set up further calls if the capacity is fully utilized.